CLAIMS

1. An acoustic insulating glazing unit comprising at least two substrate sheets (2, 3; 12, 13; 22, 23), joined together around their periphery using a device (4; 14; 24) that forms a sealed joint/spacer frame, which device, with the two substrate sheets (2, 3; 12, 13; 22, 23), defines a flat cavity (5; 15; 25) filled with a gas, characterized in that formed over at least part of the periphery of said cavity (5; 15; 25) is at least one microcavity (5a, 5b; 15a, 15b; 25a, 25b), constituting a zone of thermoviscous losses from said cavity (5; 15; 25) along at least one of the internal walls of the two substrate sheets (2, 3; 12, 13; 22, 23) by which said cavity (5; 15; 25) is bounded, the dimensions of a microcavity (5a, 5b; 15a, 15b; 25a, 25b) being chosen to promote the propagation of some of the acoustic waves from the cavity (5; 15; 25) into the microcavity, generating thermoviscous losses and thus reducing the acoustic energy of said cavity, means (6e; 16e; 26e) being provided in order to contain the acoustic waves escaping from said microcavity (5a, 5b; 15a, 15b; 25a, 25b).

2. The glazing unit as claimed in claim 1, characterized in that a microcavity (5a, 5b; 15a, 15b; 25a, 25b) is in the form of a thin layer, the width of which is between 0.2 mm and 1 mm, limits inclusive, and the useful height of which is at least equal to 6 mm.

3. The glazing unit as claimed in claim 2, characterized in that the height of the thin layer is at least equal to 11 mm.

4. The glazing unit as claimed in one of claims 1 to 3, characterized in that at least one microcavity

(5a, 5b; 15a, 15b; 25a, 25b) is formed on at least one face and at least on one of the sides of the glazing unit.

5. The glazing unit as claimed in claim 4, characterized in that at least one microcavity (5a, 5b; 15a, 15b; 25a, 25b) is formed on each of the faces of the glazing unit, especially around the entire periphery of the latter.

6. The glazing unit as claimed in one of claims 1 to 5, characterized in that a microcavity (5a, 5b; 15a, 15b; 25a, 25b) is formed between the internal wall of a substrate sheet (2, 3; 12, 13; 22, 23) and a facing wall (6a, 6b; 16a, 16b; 26a, 26b) of a section (6; 16; 26) placed at the internal periphery of the cavity (5; 15; 25) and defining an inner chamber (6e; 16e; 26e) that communicates with the microcavity (5a, 5b; 15a, 15b; 25a, 25b) via at least one opening (9a, 9b; 19a, 19b; 29a, 29b) made in said wall (6a, 6b; 16a, 16b; 26a, 26b) of the section (6; 16; 26), said chamber (6e; 16e; 26e) making it possible to contain the acoustic waves escaping from the microcavity (5a, 5b; 15a, 15b; 25a, 25b).

7. The glazing unit as claimed in claim 6, characterized in that an opening (9a, 9b; 19a, 19b; 29a, 29b) is formed by a continuous or discontinuous longitudinal slot provided in the lower part of the section opposite the flat cavity (5; 15; 25).

8. The glazing unit as claimed in claim 7, characterized in that the height of the slot (9a, 9b; 19a, 19b; 29a, 29b) is of the order of 1 mm.

9. The glazing unit as claimed in one of claims 6 to 8, characterized in that the section (6; 16; 26)

is formed by an element of at least U-shaped cross section, the bottom (6c; 16c; 26c) of which is in contact with the gas-filled cavity and the flanges (6a, 6b; 16a, 16b; 26a, 26b) define the inner chamber (6e; 16e; 26e), and the flanges (6a, 6b; 16a, 16b; 26a, 26b) each define a microcavity (5a, 5b; 15a, 15b; 25a, 25b) with the facing wall of the substrate (2, 3; 12, 13; 22, 23) and cooperate via their base with the device (4; 14; 24) that forms the sealed joint/spacer frame.

10. The glazing unit as claimed in claim 9, characterized in that the device (4; 14) forming the sealed joint/spacer frame consists of a frame (6; 16) having a bottom (6d; 16d) in contact with a peripheral gasket (8; 18) that adheres to the internal edges of the two facing substrate sheets (2, 3; 12, 13), and flanges (6a, 6b; 16a, 16b) placed opposite the substrate sheets (2, 3; 12, 13) with interposition of a continuous or discontinuous bonding/sealing bead (7a, 7b; 17a, 17b), the U-shaped section for forming the microcavities being attached to said insert frame (14) or being formed as one piece with it, in which case the flanges (6a, 6b) of the insert frame (6) are extended in order to form those of said U-shaped section.

11. The glazing unit as claimed in claim 9, characterized in that the device (24) forming the sealed joint/spacer frame consists of a peripheral foil (28) that adheres to the edges of the two substrate sheets (22, 23), the U-shaped section (26) for forming the microcavities (25a, 25b) being attached to said foil (28).

12. The glazing unit as claimed in one of claims 1 to 11, characterized in that one substrate sheet (2, 3; 12, 13; 22, 23) is formed by a monolithic

glass, a laminated glass or an acoustic laminated glass.